

DOCUMENT RESUME

ED 189 950

HE 012 873

AUTHOR McDaniel, Walter A.; Scipione, Paul A.
 TITLE A Tracking Assessment Study of Adult Educational Needs in Atlantic and Cape May Counties, New Jersey: A Prototype Application of the Scipione-McDaniel Paradigm. AIR Forum 1980 Paper.
 PUB DATE Apr 80
 NOTE 14p.; Paper presented at the Annual Forum of the Association for Institutional Research (20th, Atlanta, GA, April 27-May 1, 1980).
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Adult Education; *Adult Students; College Planning; Community Colleges; *Community Education; Educational Assessment; *Educational Demand; Facility Planning; Higher Education; Marketing; Models; *Needs Assessment; Program Development; *Regional Planning; Vocational Education
 IDENTIFIERS *AIR Forum 1980; *Atlantic Community College NJ; Scipione McDaniel Paradigm

ABSTRACT

Atlantic Community College (New Jersey) undertook to track the educational needs of adult students in its region. There were three purposes: (1) to improve and expand existing educational programs and services; (2) to gear potential new programs and services to specific community educational needs; and (3) to base all institutional plans on an accurate and feasible model for assessing potential community demand. A conceptual and empirical model developed by the authors was used to assess community educational needs. It is a method of linking public, college, and employer needs and priorities, and of making this linkage more efficient. Two telephone surveys were done in 1978 and 1979. Overall it was found that educational needs have remained stable. However, the data collected have aided in planning for new facilities and programs, such as the establishment of a new Cape May branch, different payment plans, and establishment of a casino institute. It is concluded that such periodic tracking studies would be helpful for most colleges, but that a tracking model such as that used here would maximize the usefulness of the information gathered. (MSE)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED189950

THE ASSOCIATION FOR INSTITUTIONAL RESEARCH
TWENTIETH ANNUAL FORUM, 1980
ATLANTA, GEORGIA

A TRACKING ASSESSMENT STUDY OF ADULT EDUCATIONAL NEEDS
IN ATLANTIC AND CAPE MAY COUNTIES, NEW JERSEY:
A PROTOTYPE APPLICATION OF THE SCIPIONE-MCDANIEL PARADIGM

Walter A. McDaniel, M.S.
Director of Institutional Research
Atlantic Community College
Mays Landing, New Jersey 08330

Paul A. Scipione, Ph.D.
Vice President, Manager of Northeast Office
Kenneth Hollander Associates, Inc.
122 E. 42 Street, Suite 1700
New York, N.Y. 10017

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

AFR

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

AE 012 873



THE ASSOCIATION FOR INSTITUTIONAL RESEARCH

This paper was presented at the Twentieth Annual Forum of the Association for Institutional Research held at the Peachtree Plaza Hotel in Atlanta, Georgia, April 27 - May 1, 1980. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum papers.

Mary Corcoran
University of Minnesota
(Editor, AIR Forum Publications)

THE ASSOCIATION FOR INSTITUTIONAL RESEARCH
TWENTIETH ANNUAL FORUM, 1980
ATLANTA, GEORGIA

A TRACKING ASSESSMENT STUDY OF ADULT EDUCATIONAL NEEDS
IN ATLANTIC AND CAPE MAY COUNTIES, NEW JERSEY:
A PROTOTYPE APPLICATION OF THE SCIPIONE-McDANIEL PARADIGM

Walter A. McDaniel, M.S.
Director of Institutional Research
Atlantic Community College
Mays Landing, New Jersey 08330

Paul A. Scipione, Ph.D.
Vice President, Manager of Northeast Office
Kenneth Hollander Associates, Inc.
122 E. 42 Street, Suite 1700
New York, N.Y. 10017

*"The years of rapid growth in
college enrollments are over,
and a buyers' market has set
in."*

Erik Larson
Wall Street Journal
April 15, 1980, p. 1

Background

Most colleges and other post-secondary educational institutions are beginning, of necessity, to recognize that the educational environment (or market) in which they served the public in the 1950's and 1960's is no longer extant, that in fact many diverse publics (or market segments) now need to be served, and that the many new problems and prospects need to be addressed in new ways.

HE 012 873

Officials at Atlantic Community College (hereafter referred to as ACC) recognized these realities of the educational environment in 1978 and 1979 when they commissioned a team of professional survey researchers to systematically assess and reassess community educational needs among projectable samples of adults 17 and older who live in the two counties served by the College.

That ACC wanted to track changes in adult educational needs over a period of time in those years is significant -- in 1976 the voters of New Jersey approved legal casino gaming in a special referendum and at the date of preparation of this paper three large casino/hotel complexes have already had a major impact on the local economy, culture and populace. The series of adult educational needs tracking studies were commissioned to meet three key objectives:

1. To improve and expand existing educational programs and services at ACC.
2. To gear potential new programs and services at ACC to specific community educational needs.
3. To base all institutional plans at ACC on an accurate and feasible model for assessing potential community demand.

Review of the Literature

One of the first steps in the ACC research program (and one which continues) was a review of available institutional research literature utilizing the ERIC computer data base. Citations for the years 1975 through 1980 were searched.

Telephone surveys seem to be the most prevalent way of assessing community educational needs, with mail self-administered questionnaires coming next in order of frequency (Lauth, 1978; Bounds, 1976). Selgas (1977) has reported on a multiple-method research program and Goray (1976) has reported on the use of personal, in-home interviewing. However, there are many institutional studies which can be characterized as unclear as to the data collection method used (see Alvarado, 1977).

The studies mentioned in the literature had various purposes. Some institutions were interested in finding out how the community perceived the college (Lucas, 1979), while others were aimed at collecting relevant demographic information (Wood, 1976), or the sources of demographic information (Smith, 1977). Others were aimed primarily at pinpointing specific unmet educational needs (Hutchins, 1978; Alvarado, 1977; Scipione, 1978), while others were aimed at providing specific "marketing" or market segmentation data (Keim, 1978; Scipione, 1978). Institutional planning/management/evaluation (Office of Education, 1978) and the historical characteristics of the college (Hepburn, 1977) are also apparent reasons for many such studies. Armijo (1978) presents us with a complete picture of assessment of community needs. In addition, our literature search via ERIC also leads us to make these additional observations:

1. Considering that there are now as many as 1,018 community/junior colleges in the United States, only a small number (less than 10%) have reported any needs assessments to ERIC.
2. Long-range needs or studies into the stability of needs and interests over time have not been investigated or reported.

3. There is a notable absence of any model or paradigm for facilitating the collection and interpretation of community educational needs data and for translating such data into objective institutional decision-making.

The SCIPIONE-McDANIEL PARADIGM

Before moving on to a specific discussion of the 1978 and 1979 ACC tracking studies and building upon Point #3 mentioned above, the authors would first like to describe a model or paradigm (see FIGS. 1-2-3) which has proven most useful at ACC, not only in the planning and carrying out of the tracking studies to date, but also in a more general way in making the survey data optimally beneficial to all decision-makers concerned. For lack of a better name we have called this model the SCIPIONE-McDANIEL PARADIGM.

There are 10 basic premises, definitions and operational statements associated with the paradigm:

1. The Scipione-McDaniel Paradigm (hereafter referred to as the ScMcP) is both a conceptual and empirical model for describing, explaining, and simulating the higher education environment (FIG. 1).
2. The ScMcP recognizes that the higher education environment consists of the following three separate components:

A. Public(s)	The "who" component
B. Employer(s)	The "why" component
C. Institutional resource(s)	The "how" component
3. The higher education environment is highly dynamic and linked -- internal changes in one component will have an impact (or impacts) on others. The linkages between pairs of components are bi-directional and resemble the "path" and "node/intersection" elements of a directed graph.

4. Each of the three components is made up of several sub-components and within each of the components there may be exhibited considerable heterogeneity.
5. The relationship of the three components in the ScMcP are described by assessing areas of overlap in the form of "unions" (perfect or full overlap) and "intersections" (partial overlap) -- see FIG. 1.
6. Empirically, in many higher education environments, the areas of union (TYPE 1) and intersection (TYPES 2,3, and 4) may represent a considerably smaller portion of the total area of the environment than do the non-overlapped or idiosyncratic areas (TYPES 5,6, and 7).
7. Qualitative evaluations can be made. To the extent that TYPE 1-2-3-4 areas predominate, all components and sub-components are having their needs/preferences met in a way which optimally utilizes educational resources which are increasingly scarce. To the extent that TYPE 5-6-7 areas predominate, needs and preferences are not being met, nor is efficient use being made of available higher educational resources. These two extremes are illustrated respectively by FIGS. 3 and 2.
8. Since an institution does not have unlimited resources, particularly as we move into the 1980s, a college's greatest responsibility and opportunity ought to be to concentrate those limited resources on a hierarchy which recognizes the following three levels of priority:

MOST IMPORTANT	TYPE 1, area of total union
NEXT MOST IMPORTANT	TYPES 2-3-4 in that rank order, areas of intersection
LESS IMPORTANT	TYPES 5-6-7 in that rank order, areas of no union or intersection
9. Full use of the ScMcP model and a concomitant optimal use of limited resources require continuous monitoring or tracking of all three components of the higher education environment. Maximum effective use of limited resources also comes from frequent feedback between individuals involved in the three educational components.
10. The higher education environment exhibits many classic characteristics of a free market, supply-and-demand economy, with the same kinds of equilibriums, economies and diseconomies. The optimal equilibrium state is the higher education environment in which the area of union (TYPE 1 area) approaches the point where it equals the total area within the directed graph (environment).

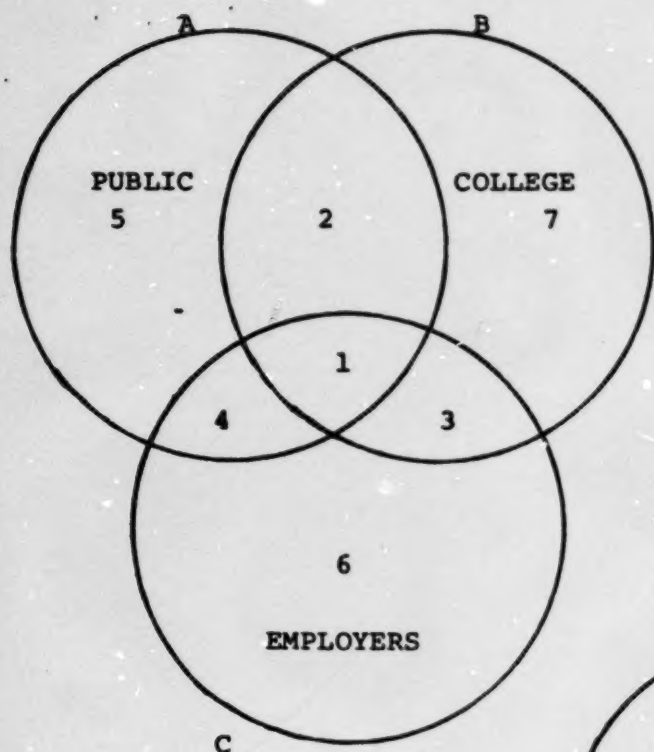


FIG. 1

THE SCIPIONE-McDANIEL PARADIGM

A = Public(s) Needs
 B = Employers' Needs
 C = Institutional Resources

Type 1 - Type 7 Overlaps =

Rank ordered or prioritized list of educational needs to be met

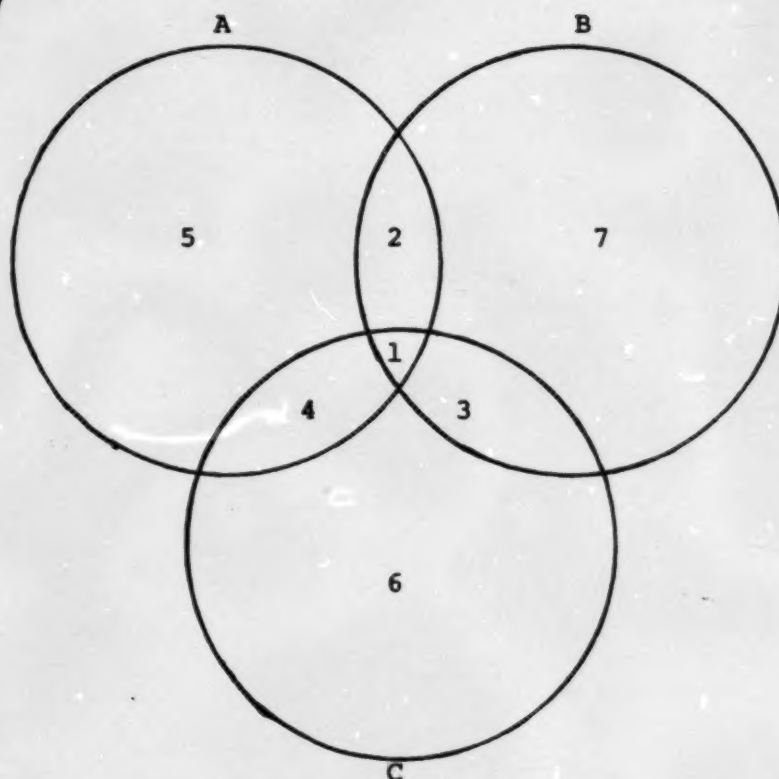


FIG. 2

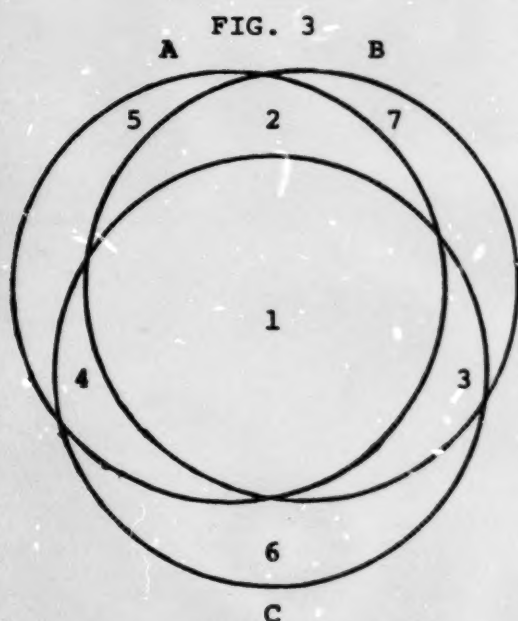


FIG. 3

FIG. 1 represents a basic schematic of the Higher Education Environment

FIG. 2 represents a minimal overlap, inefficient environment

FIG. 3 represents an extensive overlap, highly efficient environment

Tracking Study Methodology

As stated earlier, ACC commissioned two nearly identical surveys among adults 17 or older residing in Atlantic and Cape May counties in New Jersey for the purpose of tracking the hypothesized impact of local casino gaming and concomitant hospitality activities on local educational/career needs and also to assess the stability of other educational needs and preferences.

Both surveys utilized random-digit telephone sampling, a technique which makes survey data projectable to all households with a working telephone with a level of statistical precision (i.e. the so called sampling tolerance or error) dependent upon sample size. Since this sampling technique utilizes strictly random selection of all telephone numbers to be called, even those households with an unlisted number have an equal and known probability of selection. Telephone numbers were selected in three-digit calling exchanges located wholly or in part within ACC's two counties.

Data collection in the 1978 study took place during December and a total of 750 interviews were conducted by telephone. The second such survey, also conducted by telephone, took place in December 1979 and consisted again of 750 completed interviews. The applicable sampling tolerance on the total samples is $\pm 3\%$, a figure with precision comparable to that of many of the well-publicized syndicated national opinion polls. Results are projectable to nearly 250,000 adult residents of Atlantic and Cape May counties, New Jersey.

Key Results of the 1978 and 1979 Tracking Studies

Contrary to the expectations of many interested observers, the 1978 and 1979 ACC tracking studies indicated much stability in the educational needs and career goals of area adults -- the continued expansion of casino gaming, hotels and associated hospitality activities on the Jersey Shore had no noticeable impact within the time frame of one year. Since the Atlantic/Cape May area has been undergoing more rapid economic and population changes than areas elsewhere, it is reasonable to conclude that most community colleges would be provided with more than adequate tracking data if studies were spaced at two to three year (rather than one year) intervals.

Both surveys contained in excess of forty question items so it is possible here only to report on selected key findings:

- 0 Enrollment in post-secondary courses remained stable at approximately 16% (of adults 17 or older).
- 0 Among those not currently attending college, interest in doing so did decrease significantly between 1978 and 1979 (possibly due to the chance to work at casinos and hotels as an alternative).
- 0 Interest in casino/hospitality courses (on an open-ended basis) increased only from 0% to 3%.
- 0 Interest in college transfer programs, career training, and practical skills courses increased. Interest in credit free classes, job skills, and educational/career counseling decreased.
- 0 The potential educational barriers of cost and transportation/inconvenient location seemed much less of a problem to residents in 1979 than in 1978, even though ACC costs remained the same, as did the college campuses.
- 0 IN SUMMATION -- nearly all differences exhibited between the 1978 and 1979 ACC tracking studies were less than the applicable sampling tolerance -- in other words, there appears to be much stability in the educational needs and preferences of area adults.

Specific Applications of the Paradigm at ACC

Both the data from the 1978 and 1979 ACC tracking studies and the Scipione-McDaniel Paradigm have been helpful at ACC in the planning for new facilities and programs and in modification of existing ACC resources. Some examples:

- 0 ESTABLISHMENT OF A NEW CAPE MAY BRANCH. An example of a Type 1 activity -- meeting the needs both of the general public and area employers, utilizing readily available ACC resources.
- 0 DIFFERENT PAYMENT PLANS. ACC has instituted several new tuition/fee payment plans, including the acceptance of credit cards at registration. Meeting a Type 2 need.
- 0 MEETING PUBLIC NEEDS BY NEED SEGMENT. Both the 1978 and 1979 studies pinpointed five homogeneous market segments, based primarily on current enrollment and/or interest in attending college. ACC is now designing programs to meet the needs of all five segments, starting with two high priority segments. An example of a Type 2 activity.
- 0 ESTABLISHMENT OF A CASINO INSTITUTE. An example of a Type 1 activity. The fact that several classes are now offered by ACC at 4 - 6 AM when night workers at the casinos finish their work shift is an example of a Type 2 activity.

In conclusion, while it would be highly useful for most colleges to conduct periodic tracking studies among relevant public(s), the data produced by such surveys only becomes maximally useful when a conceptual model such as the Scipione-McDaniel Paradigm is used to establish the linkages between various elements in an educational environment and for assigning priorities. The success of several of these activities at ACC points to the validity of the Paradigm; the authors sincerely hope that other practitioners will extend its use.

Selected Bibliography

- Alvarado, Andrew and Shaver, John. The Unmet Educational Needs of Full-Time Employees: A Phase II Needs Assessment for New Dimensions. Los Angeles: Los Angeles Community College District Office of New Dimensions, 1977. ED 152376.
- Armijo, J. Frank and Others. Conducting Community-Impact Studies: A Handbook for Community Colleges. Boulder, Colorado: National Center for Higher Educational Management Systems, 1978. ED160137.
- Bounds, Stuart M. and Vernon, Christie D. Community Awareness of Thomas Nelson Community College and Accessibility of Educational Program: A Survey of the Adult Population of Virginia Peninsula. Hampton: Thomas Nelson Community College, 1976. ED 126965.
- Goray, Renaldo, et. al. Mexican American Community Study. Research Report 75-01. Wilmington, California: Los Angeles Harbor College, 1976. ED 138319.
- Hepburn, Kenneth. Educational Needs, Access, and Barriers of Residents in Southeast Central Los Angeles: A Phase II Needs Assessment for New Dimensions. Los Angeles: Los Angeles Community College District, 1977. ED 152375.
- Hutchins, Elbert C. The Learning Needs of Adults in Johnson County Texas. Hillsboro, Texas: Hill Junior College, 1978. ED 156247.
- Keim, William A. and Others. A Status Report from the Task Force on Marketing Research. Kansas City, Mo: Metropolitan Community Colleges of Kansas City, 1978. ED 156251.
- Lucas, John A. Survey of Goals and Impact of Harper College as Perceived by Seven Harper Constituent Groups. Vol. X, No. 3. Palatine, Ill: William Rainey Harper College, 1979. ED 169981.
- Lauth, Laurence V. and Zabek, Robert J. An Analysis of WCC's Community Needs Survey. Wytheville, Virginia: Wytheville Community College, 1979. ED 156237.
- Office of Education (DHEW). Community Impact Study: A Case Study. Mich: Kalamazoo Valley Community College and Boulder, Colo: National Center for Higher Education Management Systems, 1978. ED 154879.
- Scipione, Paul A. A Comprehensive Community Educational Needs Assessment Study of the Adult Population of Delaware County, Pennsylvania. Princeton: Response Analysis Corp., 1978. ED 156267.
- Scipione, Paul A. A Comprehensive Community Educational Needs Assessment Study of the Adult Population of Atlantic and Cape May Counties, New Jersey. Princeton: Response Analysis Corp., 1979.

Selgas, James W. Community Needs Assessment - Capital Region of Pennsylvania. Research Report 15, Vol. 1. Harrisburg: Harrisburg Area Community College, 1977. ED 146991.

Smith, Jack E. A Needs Assessment for a Community College Outreach Program: Implications for Curriculum Development. California, 1977. ED 160133.

Wood, Stephen C. Criteria for Community Services Non-Credit Classes: A Preliminary Report. Los Angeles: Los Angeles Community College District, 1976. ED 160160.